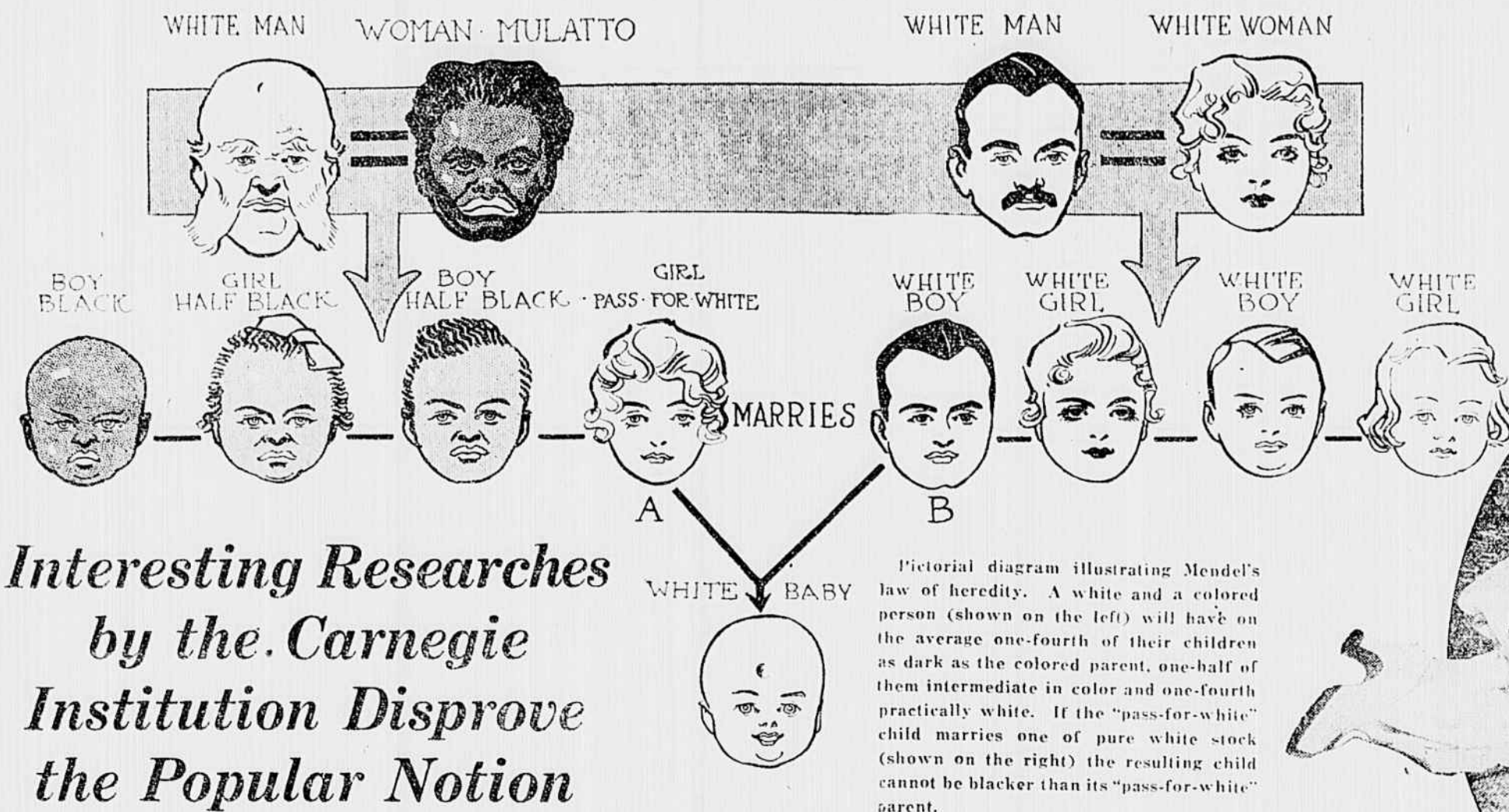


Why Baby Cannot be Darker than the Sum of Its Father and Mother



Interesting Researches by the Carnegie Institution Disprove the Popular Notion that a "Pass-for-White" Person Married to a Pure White May Have a Negro Child

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THE theatre is one of the most powerful influences in the building up of morality. Upon its stage are presented in vivid colors and high relief the problems which are puzzling us in our daily life.

It is therefore a matter of great interest and importance when the theatre presents ably and graphically a gripping play which deals with a live problem in racial morality. But it will sometimes happen that while presenting a real moral problem or struggle between higher and lower sanctions of conduct, instead of holding the mirror up to nature, a play presents the reflection of some purely imaginary or legendary event.

An interesting illustration is a play now running with much interest and success which presents with great artistic ability and skill the tragic problem of a man apparently white, but with a slight and perhaps questionable strain of negro blood from some remote ancestor, who marries a white woman, only to have his secret and shadowy misfortune shouted to the whole world by the birth of a black child!

A Very Deeply Rooted Popular Delusion.

The motif, of course, is not new, any more than that of Shakespeare's most famous plays, but has been utilized to a vivid and harrowing effect in a score of different stories, novels and plays on both sides of the Atlantic under such titles as "The Black Frankenstein," "The Inescapable Blot," "The Dark Secret," etc.

Further than this we have all heard lurid and sensational stories, usually rather vague as to name, date and place, but most circumstantial and convincing in all other details, of similar catastrophes. In fact, the belief that an apparently white man or woman, even one whose ancestors on both sides have passed for white for several generations, may at any time be suddenly confronted by his or her family skeleton in shape of a negro child, is as universally believed and well attested as William Tell's apple, George Washington's hatchet, madonnas, centaurs and hope-snares.

I am not concerned with the general merits of the play, its bearing upon race prejudice, etc. The only point to which I wish to call attention is the fact that the episode upon which its whole appeal is based has never yet been known to happen. In fact, we are able to say that it is highly improbable that it ever could happen.

This may sound rather like a sweeping and dogmatic statement and it is, of course, impossible to establish a universal negative and deny the possibility of anything happening, but here are the facts:

Some five or six years ago a very careful and well-planned investigation was begun in the Eugenics Laboratory of the Carnegie Institution, in which racial characters were inherited when two distinct human races intermixed. The problem was purely a scientific one and undertaken very largely for the purpose of throwing light upon the now famous Mendelian theory of heredity, which deals with the way in which parental characters are combined and reappear in the offspring.

The mixtures between the negro and white races were selected, chiefly because the racial characters were so strikingly different and easily distinguished. Also because it was the only mixture of the human races which was accessible for study in large amounts, under civilized conditions, where reliable vital statistics could be secured. But

chiefly because the well-known result in point of color, hair, features, etc., of the interbreeding of white and negro races has been used as one of the strongest arguments in disproof of the Mendelian theory of inheritance. It had nothing to do with the question of miscegenation, or the desirability or undesirability of the mixing of races, merely a cold-blooded scientific desire to get at the facts of what actually happened when two diverse races were inter-mated. To avoid the possibility of misunderstandings and for other obvious reasons, the studies were carried out not in the United States, but in some of the British West Indies—the Bermuda Islands.

The Mendelian theory, to put it very briefly and crudely, holds that in place of inheriting a "fifty-fifty" combination of the characteristics of both parents, and consequently representing a position half way between their two extremes, say, of color or height or mental ability, a child receives them in most unequal and varying proportions, often twice as much from one parent as from another and vice versa. Indeed, it undertakes to lay down a law which would govern the variations of these resemblances to father or mother, namely, that of any large body of offspring, one-fourth would closely resemble the mother in respect to the particular character, one-fourth the father, and one-half would present a nearly equal mixture of the traits, and either resemble both parents or stand half way between the two. This Mendel had worked out and corroborated by thousands of most ingenious and painstaking experiments in crossing various garden plants and flowers, notably the sweet pea, with astonishingly accurate results.

The Elements of Mendel's Law of Heredity.

To make a long story short, the method has since been tried out upon a great variety of plants and domestic animals with the net result that while it is not accepted in its entirety by the scientific world, it is regarded as having given us a clearer idea, a closer picture of the actual mechanism of inheritance than we ever had before.

Just to give a single, simple illustration from the poultry yard, when a Black Spanish rooster is mated with a Silver Spangled Hamburg hen, one being a glossy, raven black and the other a beautifully mottled and spangled white and black, and fifty of the resulting eggs are hatched in an incubator, the chicks when feathered out were found to be not equal mixtures and mottling of white and black, but one-fourth of them glossy black like the father, one-fourth spangled white like the mother, and one-half of them a beautiful slaty blue with black "trimmings."

These intermediate, slate-colored birds are known as Blue Andalusians, and, curious as it may seem, this beautiful and popular breed has to be produced afresh each generation in this same fashion, because by the further working of the same ingenious law, if a pair of blue chickens are mated together, their offspring, instead of being all blue, like both parents, proceed to split up into a perfect kaleidoscope of different colors, again according to a definite rule of proportions, which are too complicated to be further followed. On the other hand, if you "play both ends against the middle" and mate one of the black chicks resembling the father with one of the white spangled chicks resembling the mother, the same combination will repeat itself—50 per cent of Blue Andalusians, 25 per cent Black Spanish and 25 per cent Silver Spangled Hamburgs.

When we attempt to discover whether the Mendelian law applies to human species, we are, of course, cut off from the most valuable resource of all, the experimental method, partly because human

life is so long that it would take nearly a century to get the three successive generations required, and partly because unions between brothers and sisters are not permitted by law and public sentiment. So that the best that we can do is to take two races as widely apart as possible, and with some striking, singular difference between them, and find out what happens to this difference when those possessing it intermarry.

It is, of course, impossible to go into details, but after several years of careful study, of actual facts of race mixture in the Bermudas, Dr. Davenport, of the Eugenics Laboratory, came to the following working conclusions: That there are four factors or units required for the production of the full black negro color, of which the pure or "Guinea" negro has all four, the three-quarter blood negro, that is half way between pure black and mulatto, has three; the mulatto or half-breed two, the quadroon one, the octoon one-half, while the white, of course, has none at all. Of course, there are many difficulties in the way, questions of paternity among different children in the same family, questions of accurate birth registration and family history, but when the doubtful cases have been eliminated, it seems fairly clear to the investigators that when a white or partially white man or woman has mated with a black or partially black mate, the children, instead of being all intermediate in point of color, vary widely in color between the extremes possessed by both parents. And whenever a sufficient number of families representing the same racial mixture could be secured to give fifty or more children, it was found that, roughly speaking, one-fourth would be as white as the whitest parent, one-fourth as dark as the darkest, and one-half of a varying mixture between the two.

Another feature, however, soon came to the front with great distinctness, and that is that while there might be a wide variation in the color of the different offspring of one pair of parents, none of those offspring was ever found darker than the sum of the darknesses of the two parents. For instance, when a pure white man mated with a black woman, some of the offspring might be jet black, like the mother, some nearly pure white, like the father, and the others intermediate, because there were present in the maternal parent four full factors of blackness, and consequently any child might inherit all four.

The Color Problem Settled by Exact Scientific Methods.

But when a white man married a mulatto woman, though the children would be varying degrees of color, not one would be darker than the mother, or the darker parent; that is to say, the mother having only two factors and the father none at all, none of the children could inherit more blackness than there was in the melting-pot. The same thing held true in the marriage of a white man with an octoon or quadroon woman. No child was born darker than the mother. From this purely scientific piece of abstract investigation emerged the interesting, practical result that no individual, either knowing or suspecting that he has some slight trace of negro blood, need have any serious fear of having a child born to him darker in color or more negro-like in feature than he is himself if he mates with a white partner.

This is strongly contravened the popular belief, embodied in legend and story of the "Black Frankenstein" order, that the Commission at once proceeded to investigate the evidence upon which this belief in a "throw-back" to the original type was based, and made a thorough and careful search for all reported or recorded instances of the occurrence of such a distressing incident. Two of their most skillful trained pedigree-tracers worked for over a year on the research, and records. The result was considerably to their own surprise, that they were unable to find a single authentic and documented case of such a catastrophe ever



Under Mendel's Scientific Law It Is Possible for This Black Woman, If Her Husband Was a White Man, to Be the Mother of a Quite Light-Colored Child, and for Her Granddaughter, Married to a White Man, to Become the Mother of a Child as Fair as the Other Picture (the Very Blond Girl.)

having happened! This, of course, does not prove that it never did happen—still less that it never will. But it does make it, to say the least, highly improbable that such a gruesome calamity ever occurred.

Oddly enough, the only apparent instances of any such "reversions" occurring that could be discovered by the Commission were the appearance in the family group of two mulattos or of a quadroon and mulatto of very dark, or even coal-black negro-like children, much darker and more negro-like than either of their parents. This is not at all uncommon, and the writer has found several instances of it in our own Southern States, but, of course, it is easily explained by the fact that both parents being mulattos had each two factors of black, so that it was possible for any child by inheriting all the blackness of both parents to be born black.

Mathematical illustrations are not always illuminating, but, perhaps, a brief arithmetical statement may make the matter a little clearer. Between a black parent and a white parent there are, of course, four possible combinations of color in the offspring: White-white, black-black, black-white and white-black. Now, applying this formula to the mating of two mulattos, we might have one white, which would mean a light-colored child, inheriting all the white blood of

both parents, and probably lighter in color and more apparently white than either of them. Both white-black and black-white children would be of the approximately same grade of color as their parents, and the one black-black child inheriting all the black blood of both parents (two factors in each) would have the full four factors and be pure black negro. But in the mating of a pure white with a "pass for white" it is, to say the least, highly improbable that any child could be born more negro-like in its appearance than its darkest parent.

Incidentally another biological inaccuracy in the play may be pointed out, and that is the tense and spectacular moment when the mother, who can no longer be denied seeing her new-born baby, leaps from her couch, bursts from the arms of her husband and discovers, to her horror, that her baby is black, followed by an inhuman revulsion of feeling against her innocent child. The only defect in this situation is that it could never have happened, for the simple reason that negro babies, even of purest African strain, are never born black, or any tint approaching it, still less a child of such highly diluted mixture as represented in this situation.

Negro babies at birth are of a dull, slaty or bluish white tint skin, and remain so for several weeks. The reason for it is the same as for white babies never being born with black, brown or

bright blue eyes, namely, that it takes light to develop color or pigment. All babies are born with eyes of the same color, like kittens and puppies—that is, a dull lead color, which is sometimes romanticized into blue by adoring parents and relatives, but which gradually, under exposure to light, develops in from two to four months time the black, brown, hazel or blue color which will distinguish it for

Similarly many white children are born with light flaxen or even golden hair, which, to the bitter regret of their mothers, gradually darkens to brown, mud-color or even black. Nor is there any clear clue distinguishable, save by an expert, to the race of a new-born baby from features or hair. For the good and sufficient reason that all babies, rich and poor, black, white, yellow and brown come into the world with exactly the same set of features—that of the primitive ancestors of all human breeds, the Congo dwarfs, who are thousands of years older than any of the so-called Four Great Races of mankind.

The same uncertainty applies to the hair, which, in many babies, is neither kinky nor straight at first, but (such as there is of it) of a curious wavy, half-frizzly texture, with a strong tendency toward a rusty brown or reddish orange tint, regardless of the degree of kinkiness and blackness or straightness and flaxenness which it may assume later in life.



The Husband (with a Colored Strain) and the Wife in the Play Which Raises a Question of Popular Interest Not Based on Scientific Fact.

